

What is claimed is:

1                   1.       A program information distributing method comprising:  
2                   receiving digital broadcast information for a broadcast program,  
3 comprising Electronic Program Guide (EPG) information and program contents  
4 information from a broadcast station of a plurality of broadcast stations;  
5                   extracting from said digital broadcast information, EPG information; and  
6                   converting said EPG information to a mark-up language format.

1                   2.       The program information distributing method of claim 1 further  
2 comprising:  
3                   transmitting said EPG information in said mark-up language format to a  
4 remote handheld user device.

1                   3.       The program information distributing method of claim 2 wherein  
2 said remote handheld user device is selected from a group consisting of a mobile  
3 telephone or a Personal Digital Assistant (PDA).

1                   4.       The program information distributing method of claim 1 wherein  
2 said EPG information comprises, common EPG information and detailed EPG  
3 information, said common EPG information comprising guide information for channels  
4 of said plurality of broadcast stations, and said detailed EPG information comprising  
5 program information specific to said broadcast program.

1                   5.       The program information distributing method of claim 4 wherein  
2 said guide information comprises a channel, a program title, a program start time, and a  
3 program duration time.

1                   6.       The program information distributing method of claim 4 wherein  
2 said detailed EPG information comprises a program synopsis.

1                   7.       A method for remotely controlling a video recorder using a remote  
2 handheld device, said video recorder for recording a broadcast program, said method  
3 comprising:  
4                   said remote handheld device receiving program information on said  
5 broadcast program from a program information source;

6                    selecting said broadcast program for recording from said program  
7 information displayed by said handheld remote device; and  
8                    said remote handheld device transmitting recording information to said  
9 video recorder via a communications network, said recording information for recording of  
10 said broadcast program by said video recorder.

1                    8.        The method of claim 7 wherein said communications network  
2 comprises an internet.

1                    9.        The method of claim 7 wherein said communications network  
2 comprises a public telephone network.

1                    10.       The method of claim 7 wherein said remote handheld device is  
2 used out of a line of sight of said video recorder.

1                    11.       The method of claim 7 wherein said remote handheld device is a  
2 cellular phone.

1                    12.       The method of claim 7 wherein said remote handheld device is a  
2 Personal Digital Assistant (PDA).

1                    13.       The method of claim 7 wherein said program information source is  
2 a program information distributing device.

1                    14.       The method of claim 13 wherein said broadcast program and said  
2 program information are sent from a broadcaster to said program information distributing  
3 device on one channel.

1                    15.       The method of claim 7 wherein said video recorder is a VCR.

1                    16.       The method of claim 7 wherein said video recorder is a DVD  
2 recorder.

1                    17.       The method of claim 7 wherein said video recorder is a Hard Disk  
2 Drive (HDD).

1           18.    The method of claim 7 wherein said program information is  
2 conditionally displayed by said handheld remote device depending on a current time and  
3 time information associated with said broadcast program.

1           19.    A program information distributing device for receiving program  
2 information from a broadcaster of a plurality of broadcasters and for distributing said  
3 program information to a plurality of mobile devices, said program information  
4 distributing device comprising:  
5           a broadcast information receiving unit for receiving broadcast information,  
6 comprising program information, from a broadcaster of said plurality of broadcasters;  
7           a program extracting unit for extracting said program information from  
8 said broadcast information;  
9           a data format converting unit for converting said program information to  
10 mark-up language information; and  
11           a data information transmitting unit for sending said mark-up language  
12 information to a mobile device of said plurality of mobile devices.

1           20.    The program information distributing device of claim 19 wherein  
2 said mobile device includes a browser program to display said mark-up language  
3 information to a mobile device user.

1           21.    The program information distributing device of claim 19 wherein  
2 said mobile device includes a cell phone.

1           22.    The program information distributing device of claim 19 wherein  
2 said mobile device includes a PDA.

1           23.    The program information distributing device of claim 19 wherein  
2 said mark-up language information, comprises HTML information.

1           24.    The program information distributing device of claim 19 wherein  
2 said mark-up language information, comprises XML information.

1                   25.     A handheld device for controlling recording of a selected broadcast  
2 program of a plurality of broadcast programs by a video recording device via a  
3 communications network, said handheld device comprising:

4                   a receiving unit for receiving program guide information on said plurality  
5 of broadcast programs;

6                   a display for displaying to a user said program guide information;

7                   an input device for receiving a user selection of said selected broadcast  
8 program of said plurality of broadcast programs for recording; and

9                   an output device coupled with said communications network for sending to  
10 said video recording device control information to record said selected broadcast  
11 program.

1                   26.     The handheld device of claim 25 wherein said program guide  
2 information comprises common Electronic Programming Guide (EPG) information, said  
3 common EPG information sent by all broadcasters of said plurality of broadcast  
4 programs.

1                   27.     The handheld device of claim 26 wherein said common EPG  
2 information comprises a channel, a program title, a program start time, and a program  
3 duration time for each broadcast program of said plurality of broadcast programs.

1                   28.     The handheld device of claim 25 wherein said program guide  
2 information further comprises detailed EPG information, said detailed EPG information  
3 sent by a broadcaster of a broadcast program of said plurality of broadcast programs, and  
4 said detailed EPG information comprising a title, story synopsis, and type for said  
5 broadcast program.

1                   29.     A handheld device for controlling recording of a digital broadcast  
2 program by a video recording device via a communications network, said handheld  
3 device comprising:

4                   a processor coupled to a memory for executing a browser program stored  
5 in said memory;

6                   a receiving unit for receiving program information on said digital  
7 broadcast program;

8 a display for displaying to a user said program information using said  
9 browser program;  
10 an input device for receiving a user selection of a selected digital broadcast  
11 program for recording; and  
12 when said user selection, comprises said program information,  
13 commanding said video recording device to record said digital broadcast program.

1 30. The handheld device of claim 29 wherein said program  
2 information, comprises common EPG information and detailed EPG information, for said  
3 digital broadcast program.

1 31. The handheld device of claim 30 wherein said common EPG  
2 information is displayed on said display, and responsive to a user input for more program  
3 information on said digital broadcast program, said detailed EPG information is  
4 displayed.

1 32. The handheld device of claim 30 wherein said detailed EPG  
2 information for said digital broadcast program comprises a title, story synopsis, and type.

1 33. The handheld device of claim 29 wherein said program  
2 information, comprises common EPG information.

1 34. The handheld device of claim 33 wherein said common EPG  
2 information comprises a title and a time.

1 35. The handheld device of claim 29 wherein said browser program is  
2 HTML or XML enabled.

1 36. The handheld device of claim 29 wherein said displaying to a user  
2 said program information, comprising a start time, is performed only if said start time is  
3 on or after said current time.

1 37. The handheld device of claim 29 further comprising a time  
2 information comparing module for comparing said program information, comprising a  
3 start time, with a current time and wherein said program information is displayed on said  
4 display only if said digital broadcast program can be recorded.

1                   38.     The handheld device of claim 29 wherein said receiving unit  
2 further receives confirmation information from said video recording device on said  
3 commanding.

1                   39.     A recording device for recording a digital broadcast program from  
2 a broadcaster comprising:

3                   a receiving unit for receiving digital broadcast information, including  
4 program information and said broadcast program, from said broadcaster;

5                   a network interface unit for receiving recording instructions to record said  
6 broadcast program from a cell phone or a PDA, said cell phone or said PDA coupled to  
7 said network interface via a communications network; and

8                   a video recording unit responsive to said recording instructions for  
9 recording said broadcast program.

1                   40.     The recording device of claim 39 wherein said network interface  
2 unit has a continuous Internet connection to said communications network.

1                   41.     The recording device of claim 39 wherein said communications  
2 network, comprises a public telephone system.

1                   42.     The recording device of claim 39 wherein said cell phone or PDA  
2 initiates said recording instructions by calling said network interface unit.